

REMARKS

Claims 1-20 are pending in the application. Claims 1-20 are rejected. Claims 13 and 14 are amended herein. All rejections are respectfully traversed.

Claims 13 and 14 are objected to because of informalities. The Examiner states that the “OF transceiver” lacks proper antecedent basis. Claims 13 and 14 have been amended to recite “optical transceiver.”

Claim 19 is objected to as being of improper dependent form for failing to further limit the subject matter of the previous claim. Claims 18 and 19 are amended herein to overcome the objection.

Claims 1, 6-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brick et al. (U.S. Patent No. 6,269,342) in view of Cato (U.S. Patent No. 5,874,724).

In claims 1 and 15, the identification tag and method according to the invention includes an identification tag in a form of a single microcircuit having an optical transceiver, a radio transceiver, a memory storing an identification code connected to the optical transceiver and the radio transceiver, means for operating at least one of the transceivers in receive mode while operating at least one of the transceivers in transmit mode, and means for transmitting the identification code by the transceiver operating in the transmit mode in response to receiving a predetermined signal by the transceiver operating in the receive mode.

Cato describes an RFID tag that includes an infrared receiver and a radio transceiver (see Figure 1). The RFID tag described by Cato requires *both* the radio transceiver and the optical receiver to *each* receive a signal before the radio transceiver can transmit information to the base station. Further, Cato is silent as to transmitting an identification code in response to receiving a predetermined optical signal. Cato activates a radio transceiver in response to receiving the optical signal. The radio transmission by the tag is in response the radio signal from the base station, not the optical signal, see col. 2, lines 37-44, which only enables RF transmission by the tag. Claimed is transmitting the identification code by the transceiver operating in the transmit mode in response to receiving a predetermined signal by the transceiver operating in the receive mode. As described at col. 4, lines 25-30, Cato can only provide information back to RFID base station 120 when tag 104 has been enabled (by the RF transceiver receiving a radio transmission from the base station, see col. 3, lines 34-36) and a pulsed light source is received by the infrared receiver. Cato can never transmit in response to a receiving a predetermined signal by the transceiver operating in the receive mode as claimed. Cato explicitly states the RFID tag cannot transmit if both signals are not received. Therefore, Cato cannot be used to make the invention obvious.

Brick describes an RFID tag having an infrared transceiver 338A, a radio transceiver 338B, and a memory 334, see Figure 10. That is where any similarity between Brick and what is claimed ends. The control unit 332 of Brick never operates at least one of the transceivers in receive mode while operating at least one of the transceivers in transmit mode as claimed. The radio transceiver of Brick only transmits in response to receiving a radio signal at that radio transceiver, see col. 13, lines 51-63. The infrared transceiver only transmits in response to receiving an infrared signal at that infrared transceiver, see col. 14, lines 37-50.

Therefore, the combination of Cato and Brick can never make obvious what is claimed. Accordingly, it is respectfully requested that the Examiner reconsider and withdraw the 35 U.S.C. 103(a) rejection of independent claims 1 and 15 and their dependencies.

Claims 6-14 recite further limitations that independently distinguish over the prior art.

In claim 6, the identification code includes one or more dates. Brick describes receiving an ID code having price or date information at the tag, but never transmitting the code by the tag, see col. 13, lines 55-61. The information is displayed on the tag display device, but never transmitted by transceiver operating in the transmit mode in response to receiving a predetermined signal by the transceiver operating in the receive mode, as claimed.

In claim 7, the received signal is a light signal, and the transmitted signal is a radio signal. As stated above, Brick only responds to a received infrared signal by transmitting an infrared signal. Brick only responds to a received RF signal by transmitting an RF signal. Brick is useless for making the invention obvious.

In claim 8, the received signal is a radio signal. As stated above, Brick only responds to a received RF signal by transmitting an RF signal. Brick can never make the invention obvious.

In claim 9, the identification tag also includes means for operating at least one of the transceivers in receive mode and transmit mode while operating the other

transceivers in transmit mode. Brick teaches operating a single transceiver to transmit in response to receiving a signal at that transceiver.

In claim 10, at least one of the transceivers operates in receive mode and transmit mode while the other transceivers operates in receive mode. In claim 11, at least one of the transceivers operates in receive mode and transmit mode while the other transceivers operates in receive mode and transmit mode. As recited in claim 1, the transmitting of the transceivers is in response to receiving a predetermined signal by the transceiver operating in the receive mode. As stated above, the combination of Cato and Brick fails to teach what is claimed. The Examiner is requested to specifically point out exactly where each operational transceiver combination is described in the references in response to receiving a predetermined signal by the transceiver operating in the receive mode as claimed.

Claim 12 recites means for synchronizing the transmitting and receiving according to receiving light. In claim 13, the optical transceiver is omni-directional. In claim 14, the optical transceiver is narrow beam. As stated above, Cato can never transmit in response to a receiving a predetermined signal by the transceiver operating in the receive mode as claimed. Cato explicitly states the RFID tag cannot transmit if both signals are not received. Therefore, Cato cannot be used to make the invention obvious.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brick et al. (U.S. Patent No. 6,269,342) as modified by Cato (U.S. Patent No. 5,874,724) further in view of Gloton (U.S. Patent No. 5,635,701).

In claim 2, the optical transceiver includes a single photodiode configured to transmit and receive light signals. Gloton describes a device for linking a chip card connected to a pack with a central processing unit, to enable the pack to communicate with the chip card and to set up a link between the pack and the central processing unit to place the chip card in a functional link with the central processing unit. Basically, the chip card of Gloton is capable of receiving more than one type of signal, e.g., radio, optical, ultrasound, or voice frequency signals. The chip card detects the type of signal and opens an appropriate channel between the pack and the CPU. Gloton has nothing to do with the invention. The “transmitter-and-receiver infrared diode 106” described by Gloton is only a communications channel option. There is no other transceiver operated in response to receiving a predetermined signal as claimed. The transceivers described in Gloton only provide a choice of communication channels and are independent. Gloton fails to cure the defects of Cato and Brick.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brick et al. (U.S. Patent No. 6,269,342) as modified by Cato (U.S. Patent No. 5,874,724) further in view of Beigel et al. (U.S. Patent No. 6,784,788).

Beigel describes a “universal” tag, which can take as input different waveforms of an alternating electromagnetic field from a tag reader and respond to the input signal with an appropriate waveform that would be understood by the reader, see col. 5, lines 32-45. Beigel also describes a power developer that recharges a battery using the signal transmitted by the reader. Beigel fails to describe any of the elements of claim 1, and therefore can never be used to make obvious what is claimed.

In claims 3-5, the radio transceiver includes an antenna formed as an induction coil, the induction coil acquires power for the optical transceiver, and means for storing the power. Beigel never describes any optical transceiver, and therefore does not use a radio transceiver to acquire and store power for the optical transceiver as claimed.

Claims 16 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Cato (U.S. Patent No. 5,874,724 – “Cato”).

As stated above with respect to claim 1, Cato describes an RFID tag that includes an infrared receiver and a radio transceiver (see Figure 1). The RFID tag described by Cato requires *both* the radio transceiver and the optical receiver to *each* receive a predetermined signal before the radio transceiver can transmit information to the base station. Further, Cato is silent as to transmitting an identification code in response to receiving a predetermined optical signal. Cato activates a radio transceiver in response to receiving the optical signal. The radio transmission by the tag is in response the radio signal from the base station, not the optical signal, see col. 2, lines 37-44, which only enables RF transmission by the tag.

In claim 16, an identification tag includes a memory storing an identification code, an optical communication part for receiving a predetermined optical signal, and a radio communication part for transmitting the identification code stored in the memory when receiving the predetermined optical signal by the optical communication part. The tag described by Cato transmits an RF signal in response to an RF signal, but can only do so when enabled by an optical signal. That is irrelevant to what is claimed. The same is true for claims 18-20, which recite an optical part receiving a predetermined signal which causes a radio communication

part to transmit an identification code in response to the predetermined optical signal. No such thing is described by Cato.

All rejections have been complied with, and applicant respectfully submits that the application is now in condition for allowance. The applicant urges the Examiner to contact the applicant's attorney at the phone and address indicated below if assistance is required to move the present application to allowance. Please charge any shortages in fees in connection with this filing to Deposit Account 50-0749.

Respectfully Submitted,



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